

**Notice of Allowability**

Application No.

09/913,548

Applicant(s)

HUSS ET AL.

Examiner

Art Unit

N. Bhat

1761

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Preliminary Amendment of August 15, 2001.
2. ☒ The allowed claim(s) is/are 1-10, 12 and 13 re-numbered as 1-3, 5-6, 8-12, 4 and 7 respectively.
3. ☒ The drawings filed on 15 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. _____  |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____               | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                  |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other  |

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1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Faber on October 14 and October 15, 2003. On October 14, the examiner spoke with applicant's representative to discuss pending claims, as the preliminary amendments were not entered properly. Applicant's representative indicated that Claims 1-10 are pending. Appendix A and marked-up version Appendix B filed August 15, 2001, corrected the multiple dependencies in the claims and this is a Preliminary Amendment which should be entered. Also discussed that the British pound sign "£" should be a less than or equals to sign " $\leq$ " and was an inadvertent typo. Also in Appendix A, Claim 11 should be cancelled.

The application has been amended as follows:

In the Claims:

Claim 3, delete "preferably 1000 s-1,"

Claim 5, delete ", preferably between 6.0 and 6.5"

Claim 7, delete "£" and insert -- $\leq$ --

Cancel Claim 11

Insert the following new claims:

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--Claim 12 (new) The process as claimed in claim 3, wherein, when the hot-holding under non-shearing conditions is carried out at a value for the shearing rate of  $1000 \text{ sec}^{-1}$  is not exceeded.--

--Claim 13 (new) The process as claimed in claim 5, wherein the pH of the aqueous solution is between 6.0 and 6.5.--

The following is an examiner's statement of reasons for allowance:

The invention relates to a process for producing a concentrate of denatured whey protein aggregates, the process essentially consisting of the steps that an aqueous whey protein solution having a whey protein content of at most 3% by weight is heat-denatured by hot-holding at a temperature in the range from 75 to 150°C, at a pH in the range from 5.0 to 7.0 under essentially non-shearing conditions in such a manner that greater than or equal to 90% of the whey protein are heat-denatured to form whey protein aggregated having a mean aggregate size in the range from 1 to 4 microns which is then concentrated. The prior art to Singer teaches a process of preparing heat denatured whey protein aggregated by using high shear rates to prevent agglomeration of the proteins into large particle sizes which do not have the fat mimicking organoleptic properties. McCarthy et al. teaches a process of making a protein fat replacer which is an improvement over the Singer Patent and teaches that with low agitation agglomerates of heat denatured whey protein can be prepared having particle diameters of 1 to about 20 microns, the process entails providing an aqueous mixture of whey protein and casein, agitating the mixture to disperse the ingredients, adjusting the pH to about 3 to 6.6 and heating the mixture sufficiently to at least partially denature the

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whey protein and desolubilize a portion of the casein. No high shear is required.

McCarthy does not teach applicant's proviso that a hot denatured whey protein is provided wherein greater than or equal to 90% of the whey protein a heat denature to form whey protein having a mean aggregate size in the range from 1 to 4 microns.

McCarthy teaches that the process provides 20% to nearly 70% denatured whey protein. There is no suggestion in McCarthy that greater than or more than 90% of the whey protein is heat denatured by performing the method. The prior art fails to teach or suggest applicant's method as claimed for preparing a concentrate of more than 90% of heat denatured whey protein having a mean aggregate size in the range from 1 to 4 microns.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Singer et al. teach a process of making a heat denatured whey protein used as a fat mimetic using high shear. Atsuta et al. teach a method of making low fat sausage. Yamamoto et al. teach a process of making proteinaceous microparticles which are useful as fat substitute containing no fat. Visser et al. teach an edible plastic composition containing at least 5wt% of a heat-denatured dispersion in the form of a non-aggregated protein based macrocolloidal particles. McCarthy et al. teaches a protein fat replacer and method, which uses low shear and heat. Jolly

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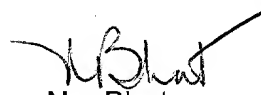
teaches a method of making a modified protein by heat denaturing by enzymatic proteolysis.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 703-308-3879.

The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 703-308-3959. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5665.

  
N. Bhat  
Primary Examiner  
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